

Amendments to the Claims

Please cancel claims 1-8 without prejudice. Please add new claims 9-28 as shown below in the List of Claims.

List of Claims

- 1-8. Cancelled.
9. (New) A process for obtaining a purified gas by removing polysulfanes from crude gas formed during the production of hydrogen sulfide, comprising:
 - a) passing said crude gas through a wash system where said crude gas is brought into contact with a wash solution comprising water or methanol; and
 - b) collecting said purified gas from the wash solution of step a).
10. (New) The process of claim 9, wherein said crude gas comprises greater than 80% by volume of H_2S and 100-2000 vpm of polysulfanes of the formula H_2S_n , wherein $n = 2-8$.
11. (New) The process of claim 10, wherein said polysulfanes are present in said crude gas at 400-1500 vpm.
12. (New) The process of claim 9, wherein said wash system is a jet washer.
13. (New) The process of claim 9, further comprising a second wash step in which the purified gas produced in step a) is passed through a counter-current washer comprising an aqueous or methanolic solution.
14. (New) The process of claim 9, further comprising a second wash step in which the purified gas produced in step a) is passed through an adsorber bed.
15. (New) The process of claim 9, wherein relative to said crude gas, the polysulfanes in said purified gas have been reduced by 50-99.5%.

16. (New) The process of claim 9, wherein said process is carried out at a temperature of 0-150°C.
17. (New) A process for obtaining a purified gas by removing polysulfanes from crude gas formed during the production of hydrogen sulfide, comprising:
 - a) passing said crude gas through a wash system comprising an aqueous or methanolic solution containing 0.5-20 wt% of an alkali or alkaline earth hydroxide or oxide; and
 - b) collecting said purified gas from the aqueous or methanolic solution of step a).
18. (New) The process of claim 17, wherein said crude gas comprises greater than 80% by volume of H₂S and 100-2000 vpm of polysulfanes of the formula H₂S_n, wherein n = 2-8.
19. (New) The process of claim 18, wherein said polysulfanes are present in said crude gas at 400-1500 vpm.
20. (New) The process of claim 17, wherein relative to said crude gas, the polysulfanes in said purified gas have been reduced by 50-99.5%.
21. (New) The process of claim 17, wherein said wash system is a jet washer and said process further comprises a second wash step in which the purified gas of step a) is passed through either: a counter-current washer comprising an aqueous or methanolic solution; or an adsorber bed.
22. (New) A process for obtaining a purified gas by removing polysulfanes from crude gas formed during the production of hydrogen sulfide, comprising:
 - a) passing said crude gas through a wash system comprising an aqueous or methanolic solution containing 1-20 wt% of a compound selected from the group consisting of:

- i) an organic amine of the formula $(C_nH_{2n+1})_xNH_y$, where $n = 1-3$, $x = 2$ or 3 , and $y = 0$ or 1 ;
 - ii) an amino alcohol of formula $(C_nH_{2n+1}O)_xNH_y$, where $n = 1-3$, $x = 2$ or 3 , and $y = 0$ or 1 ; and
 - iii) ammonia;
 - b) collecting said purified gas from the aqueous or methanolic solution of step a).
23. (New) The process of claim 22, wherein said compound is an organic amine of the formula $(C_nH_{2n+1})_xNH_y$, where $n = 1-3$, $x = 2$ or 3 , and $y = 0$ or 1 .
24. (New) The process of claim 22, wherein said compound is an amino alcohol of formula $(C_nH_{2n+1}O)_xNH_y$, where $n = 1-3$, $x = 2$ or 3 , and $y = 0$ or 1 .
25. (New) The process of claim 22, wherein said compound is ammonia.
26. (New) The process of claim 22, wherein said crude gas comprises greater than 80% by volume of H_2S and 100-2,000 vpm of polysulfanes of H_2S_n , where $n = 2-8$.
27. (New) The process of claim 22, wherein relative to said crude gas, the polysulfanes in said purified gas have been reduced by 50-99.5%
28. (New) The process of claim 22, wherein said wash system is a jet washer and said process further comprises a second wash step in which the purified gas of step a) is passed through either: a counter-current washer comprising an aqueous or methanolic solution; or an adsorber bed.